Public Service Commission of Wisconsin

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610 North Whitney Way
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March 8, 2006

TO: The Clean Coal Study Group

FROM: David Ludwig, Assistant General Counsel
Lois Hubert, Financial Analyst

Re: Federal and State Incentives for IGCC

Attached are three items we will be using for today's discussion of the existing federal and state incentives for promoting IGCC:

1. The first document is a two-page outline of our presentation.

2. The second document is a short September 9, 2005 internal memorandum written for the Commission's IGCC Team. It describes the financial incentives embodied in the Energy Policy Act of 2005.

3. The third document is an excerpt from The National Regulatory Research Institute's Report 05-10, "Summary of the Energy Policy Act of 2005" (September 2005).[1] It provides another perspective on the IGCC incentives that Congress enacted.

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Attachments

[1] A full copy of this report is available from the National Regulatory Research Institute on its web site. Visit www.nrri.ohio-state.edu/dspace/bitstream/2068/567/1/Summary +of+Energy+Policy+Act+of+2005.pdf.

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March 10, 2006

Federal and State IGCC Financial Incentives

I. **EPACT 2005 Incentives**
   A. Title IV Clean Coal
      1. DOE's Clean Coal Power Initiative
      2. Clean Power demonstration projects
      3. Clean Air Coal Program
   B. Title IX Research and Development
      1. Renewable resources
      2. Demonstration project of wind and gasification
   C. Title XIII Tax Incentives
      1. Advanced coal projects
      2. Qualifying gasification project credit
   D. Title XVII Innovative Technologies

II. **Other State and Local Incentives**
   A. Sources of Incentives (state governments, regional agencies, industry organizations, state regulatory agencies)
   B. Recipients of Incentives (IOUs, independent and merchant power producers, public power organizations)
   C. Grants and Cost Sharing (Colorado, Illinois, Minnesota, Ohio, Pennsylvania, Texas)
   D. Income Tax-Related Incentives
      1. Production tax credit
      2. Accelerated depreciation
      3. Investment tax credits (Indiana, Kansas, Illinois)
   E. Other Tax-Related Incentives
      1. Property tax abatement (Illinois, Kansas, Texas)
      2. Sales tax abatement (Illinois)
      3. Utility tax exemption (Illinois)
   F. Financing-Related Incentives
      1. Loan guarantees (Colorado proposes credit support for federal guarantee under 3rd party proposal)
      2. Securitization
      3. Direct governmental loans (Illinois, Kansas)
   G. Other
      1. Guaranteed firm purchaser of Power (Minnesota, Pennsylvania)
      2. Accelerated recovery of investment costs for ratemaking (Indiana)
      3. Return on equity (Indiana)
      4. Preconstruction costs (Indiana, Wisconsin for all construction)
      5. Construction work in progress (Indiana, Wisconsin for all construction)
      6. Fuel costs

Three Sample State Approaches

I. The Texas Approach (Clean Coal Technology Council of Texas)[1]

A. Lift existing emission regulations
B. Ease site permitting for IGCC and for new rail lines
C. Ease water extraction permitting
D. Ease lignite extraction permitting
E. Pressure federal government to exempt IGCC from New Source Review standards
F. Guarantee utility's recovery of costs

II. The Ohio Approach[2]

A. Below-market loans
B. Business development grants for M&E, infrastructure improvements, R&D
C. Grants for roadwork and infrastructure
D. Community development block grants
E. Industrial project financing
   1. Tax-exempt revenue bonds
   2. Enterprise bonds
F. Tax credits (refundable) and exemptions
   1. Job creation
   2. M&E investment
   3. Enterprise zones
   4. TIF

III. The Minnesota Approach (Excelsior's Mesaba Energy Project)[3]

A. Exempt generating plant and transmission entirely from CON
B. Eminent domain authority for siting generation and transmission
C. Secure federal loan guarantees under Round 2 of Clean Coal Power Initiative
D. Guaranteed state-approved PPA with NSP-Xcel
E. NSP-Xcel is guaranteed recovery of its PPA costs from ratepayers
F. Require that Xcel deliver a minimum percentage of power from Excelsior to its ratepayers
G. Treat coal as if it were "renewable"
   1. Project is eligible for "renewable development" funding ($2 million/year, five years)
   2. Power from the project will be considered "renewable" for purposes of meeting the RPS requirement (2 kWh of coal = 1 kWh of renewables)

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[1] A copy of the Texas Technology Council's March 2005 report "Clean Coal: The Key to Affordable Electricity in Texas" is available at www.rrc.state.tx.us/commissioners/williams/energy/report_3-3-05cc.pdf.
[2] *See* "Siting New Energy Infrastructure in Ohio: A Guidance Document," Ohio Power Siting Board (February 2005). A copy of this Manual is available at the Board's web site: www.opsb.ohio.gov.
[3] *See* Minnesota House of Representatives H.F. No. 9 (2003). A copy of this bill is available at www.revisor.leg.state.mn.us/bin/bldbill.php?bill=H0009.2.html&session_year=2003&session_number=1.

PUBLIC SERVICE COMMISSION OF WISCONSIN

Memorandum

September 9, 2005

TO: IGCC Team

FROM: David Ludwig

RE: Financial incentives in the Energy Policy Act of 2005

The Energy Policy Act of 2005 (EPACT), which President Bush signed into law one month ago, creates billions of dollars in federal incentives for clean coal. It promotes coal gasification through the financing of demonstration projects and research and development. It also offers federal loan guarantees and tax incentives for coal gasification. This memorandum summarizes these financial incentives, focusing specifically on integrated gasification combined cycle (IGCC) incentives.

EPACT Title IV

Title IV of EPACT is all about coal and Subtitle A is its "Clean Coal Power Initiative." Section 401 of EPACT appropriates $200 million for the Secretary of Energy to expend annually, for each of the years 2006 through 2014, to finance clean coal projects.[1] Under § 402, at least 70 percent of these funds must be used to fund coal-based gasification projects such as IGCC.[2] The Secretary will establish the emission and thermal efficiency standards that coal gasification projects must meet in order to be eligible for assistance under the Clean Coal Power Initiative.

Subtitle B of Title IV is named "Clean Power Projects." This portion of EPACT authorizes loan guarantees and establishes federal IGCC demonstration projects. Many of these initiatives look as though they are already set aside for specific projects. For example, § 411 grants the Secretary of Energy the ability to provide a loan guarantee to an IGCC project that uses Western coal, is combined with wind, is at least 200 MW, and is located in the upper Great Plains.[3] Section 412 authorizes direct loans to finance construction of a clean coal plant near Healy, Alaska, and § 413 describes a Department of Energy demonstration project that must use Western coal and be located in a western state at an altitude of at least 4,000 feet above sea level.[4] Section 414, though, provides loan guarantees for projects that could be located in Wisconsin. This provision of EPACT is more general in scope; it makes loan guarantees available for any IGCC plant of at least 400 MW that "produces power at competitive rates in deregulated energy generation markets and that does not receive any subsidy (direct or indirect) from ratepayers."[5]

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[1] EPACT05 page 475. These footnotes refer to pages of EPACT as it appears in the 109th U.S. Congress Conference Report of July 27, 2005. In total, this copy of EPACT is 1,724 pages long.
[2] EPACT05 pages 477-78.
[3] EPACT05 page 489.
[4] EPACT05 page 494.
[5] EPACT05 page 495.

Subtitle C of Title IV creates a "Clean Air Coal Program." Section 421 of EPACT declares that the primary purpose of this program is to mitigate financial risks and facilitate the production of clean coal-based power.[6] The Secretary of Energy can provide financial assistance in the form of cost sharing (up to 50 percent of total project cost), grants, cooperative agreements and loans through the Clean Air Coal Program for a variety of advanced combustion equipment, including IGCC projects. Between 25 and 75 percent of the projects supported must be for the sole purpose of generating electricity. Over the years 2007 through 2013, Congress has appropriated a total of $2.5 billion for advanced coal-fired generation under the Clean Air Coal Program.[7] (In addition, this program makes available $500 million for air quality enhancement of existing generating units over the years 2007 through 2011.)

EPACT Title IX

Title IX of EPACT is an assortment of research and development (R&D) programs. Subtitle C is named "Renewable Energy," but even hidden in this portion of the law can be found funds for R&D gasification projects. Section 931(a)(2)(E) directs the Secretary of Energy to conduct R&D, demonstration, and commercial application programs for the combined use of wind and IGCC plants. The Secretary must also carry out a demonstration project in some rural area that combines wind and coal gasification.[8]

EPACT Title XIII

EPACT Title XIII, "Energy Policy Tax Incentives," makes a broad range of changes to the Internal Revenue Code in the interest of promoting investment in electric utility infrastructure, production of domestic fossil fuels, and energy conservation. Section 1307 provides a substantial tax credit for advanced coal projects.[9] This portion of EPACT allows the Secretary of Revenue to certify up to $1.3 billion in tax credits for advanced coal projects, up to $800 million of which is earmarked specifically for IGCC.[10] In addition, a separate tax credit is created solely for gasification projects. This "Qualifying Gasification Project Credit" applies to projects using coal or a variety of other feedstocks. The sponsor of such a project can qualify for a tax credit equaling 20 percent of the investment made during a particular year; the maximum allowable investment is $650 million/year and the total gasification credit that a single project can receive cannot exceed $350 million.[11]

EPACT Title XVII

EPACT Title XVII, "Incentives for Innovative Technologies," authorizes more loan guarantees for gasification and other projects. Section 1703 describes the projects that are eligible for these guarantees, and this law specifically includes IGCC plants.[12] Congress has authorized a sum sufficient appropriation for these incentives and has provided that the federal loan guarantee can cover as much as 80 percent of the project cost. (A "sum sufficient"

[6] EPACT05 pages 500-502.
[7] EPACT05 page 506.
[8] EPACT05 pages 854 and 857.
[9] EPACT05 page 1262.
[10] EPACT05 page 1269.
[11] EPACT05 pages 1278-83.
[12] EPACT05 page 1653.

appropriation has no dollar limit. Wisconsin used to allow such bottomless public appropriations, but eliminated them from the state budget approximately 25 years ago.) The maximum term of a guaranteed loan under § 1703 is 30 years; if the borrower defaults upon the obligation, the lender can rely on the full faith and credit of the U.S. Government. [13]

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[13] EPACT05 pages 1645, 1647 and 1660.